CLAIMS AFTER AMENDMENTS

1. A technique for bilevel printing of an image or figure comprising:

providing an inkjet printhead having a nozzle pitch of a first resolution;

creating a higher resolution bitmap which resolution is greater than the first resolution;

eliminating certain selected alternate pixel rows entirely from the printed rows of higher

resolution bitmap by converting the higher resolution bitmap into a downscaled lower resolution

bitmap having a reduced number of preserved rows available for printing, said preserved rows

including "on" pixels added from the eliminated non-printing rows to help avoid losing image

details; and

printing the downscaled lower resolution bitmap onto an asymmetrical pixel grid having

the first resolution in one axis and the higher resolution in a second axis.

2. The technique of claim 1 wherein said converting includes applying a narrowing

process only in the axis of higher resolution by shifting and preserving any vertical edge pixels of

the figure.

3. The technique of claim 1 wherein said converting includes applying a logical

operation on certain rows of the higher resolution bitmap to determine whether or not to preserve

any "on" pixels which are in the eliminated alternate pixel rows as a result of printing onto the

asymmetrical pixel grid.

4. The technique of claim 3 wherein said applying includes applying a logical operation

on one of the eliminated alternate pixel rows and its two adjacent rows of the higher resolution

bitmap.

5. The technique of claim 1 wherein said first resolution is approximately 600 dpi.

6. The technique of claim 5 wherein said asymmetrical pixel grid is approximately 600 dpi in the media advance axis and approximately 1200 dpi in the carriage scan axis.

7. The technique of claim 1 wherein said first resolution in the one axis is approximately one half of said higher resolution in the second axis.

8. The technique of claim 7 wherein the second axis of said higher resolution extends in a scanning axis direction of the inkjet printhead..

10. The technique of claim 1 wherein said higher resolution bitmap has a resolution which is a multiple of said first resolution.

12. The technique of claim 4 wherein the logical operation is applied to preserve and transfer an "on" pixel from an eliminated row to an adjacent non-eliminated row in the event there is a predetermined number of "off" pixels on the two adjacent rows of said eliminated row.

13. The technique of claim 12 wherein the logical operation is applied to an individual pixel on an eliminated row and to individual pixels on two vertically adjacent rows.

14. The technique of claim 12 wherein the logical operation is applied to an individual pixel on an eliminated row and to vertically adjacent individual pixels on both an upper and lower vertically adjacent row, respectively.

15. A method of achieving high quality printing from one or more printheads having a given nozzle pitch resolution, comprising:

creating a first symmetrical bitmap having a resolution which is a multiple of the given nozzle pitch resolution;

transforming the first bitmap by eliminating certain entire pixel rows from said first

symmetrical bitmap in order to create a downscaled asymmetrical bitmap having a reduced

number of preserved rows available for printing on an asymmetrical pixel grid having a higher

resolution in a carriage scan axis and a lower resolution in a media advance axis, said preserved

rows including "on" pixels added from the eliminated non-printing rows to help avoid losing

image details; and

performing a logical operation on an eliminated non-printing pixel row and two of its

adjacent preserved pixel rows in order to select said "on" pixels to be transferred from the

eliminated non-printing pixel row and added as a replacement for an "off" pixel in one of said

two adjacent pixel rows to help avoid losing image details..

16. The technique of claim 1 wherein said converting includes applying an interior

depletion pattern in the axis of higher resolution and a different edge depletion pattern prior to

printing.

17. The method of claim 15 wherein said transforming includes applying an interior

depletion pattern in the axis of higher resolution and a different edge depletion pattern prior to

printing.

18. The method of claim 15 wherein said transforming includes applying a narrowing

process only in the axis of higher resolution.

19. A printing system comprising:

one or more print cartridges having a given print resolution;

a carriage for mounting the one or more print cartridges;

motor means for scanning the carriage across a print medium; and

a writing system for downscaling raster data from a high resolution A = B bitmap to a

lower resolution asymmetrical bitmap where A is not equal to B by completely eliminating

certain linear sequences of printed pixel rows such as selected non-adjacent pixel rows resulting

in a modified bitmap with a reduced number of remaining preserved pixel rows to be printed,

wherein said writing system also performs a logical operation comparing "on" pixels in the

eliminated non-printing rows with "off" pixels in selected adjacent remaining preserved rows in

order to preserve and transfer certain "on" pixels from an eliminated non-printing row to a

remaining preserved row for printing by the cartridges on the print medium.

20. The printing system of claim 19 wherein the given print resolution of the print

cartridges is less than the high resolution of the A = B bitmap.